1:Beals E-5 (1940-1941)1946 NU34 Tarasco NU34

[p. 13a]

197 Probably no group of Tarascans has great difficulty in understanding any other group. As Tarascan has not been subjected to intensive grammatical analysis, thus far no affiliations for the language have been seriously proposed.

105 To summarize the discussion, the Tarascans appear to be fairly typical of the plateau Indians of Central Mexico in type, but they speak a unique language. Both anciently and today

[text continues on top of p. 13b]

TECHNOLOGY

EXPLOITATIVE ACTIVITIES

128 In this section are described the techniques of the Cherán Tarascans for the exploitation of the environment. With a few exceptions, manufacturing processes, the uses to which the products are put, and the economic system into which they enter are discussed in later sections.

COLLECTING

222 *Plants.*—No food plants are collected regularly. Recourse is sometimes had to edible greens in times of starvation or as an occasional means of bringing variety into the diet. Most useful plants, except medicinal herbs, exist in the town in virtually a semidomesticated state. This is particularly true of the [263] most commonly used plants such as kulántro (*silantro*),[2] the most frequently employed herb for flavoring food. Similarly, *manzanillo*, [278] probably the most generally used medicinal herb, is to be found in every garden. Discussion of these plants can therefore best be deferred to the discussions of medicine and the house gardens.

A small wild maguey growing in the mountains and in the *malpais* (lava flows) is col- [252] lected from November to May. The heart is roasted in pit ovens and sold.

222 412 One minor commercial enterprise, formerly of some importance, is collecting *raiz de paja*, the roots of a coarse grass. The roots are cut off and carried to Cherán, where they are carefully laid out in rows on sunny, dry days. After drying, they are tied in bundles for sale

[104] [2] Tarascan words are in Roman and Spanish words are in italic unless they are in frequent English usage. Spanish words with special local meanings are in quotation marks.

[text continues on middle of p. 13b]

1:Beals E-5 (1940-1941)1946 NU34 Tarasco NU34
Sierra Tarascans

105 they occupy a temperate to cold environment, which offers rich rewards to a farming people but which otherwise possesses relatively meager resources. In prehistoric times the Tarascans were able to utilize the present area as a base to develop a modest empire. In historic times, their empire gone, they still have maintained a degree of individuality in the face of an encroaching modern civilization.

TECHNOLOGY

222 412 for the manufacture of brushes. The entire family may work at this task. While some collecting of *raiz de paja* still is carried on, the market collapsed badly with the outbreak of war in 1939, depriving a number of families of an important part of their livelihood. In good times, the roots sold at 30 to 35 centavos a kilo.[3]

222 388 A root, čalankóte, is used for washing woolens and is considered superior to soap.[4] It is dug in the barrancas, both for use and for sale. In Angáhuan, Rendón found seeds of a bush called kómerame used for the same purpose, as well as leaves called apúpen and roots of the plant pačánkua.

227 237 *Honey gathering.*—The one collecting technique still important in Cherán is gathering wild honey. Not only are there still specialists who spend many weeks at the occupation during proper seasons of the year, but there are numerous ceremonial associations. The *panaleros* or honey collectors are divided into two groups, each with an image and a *mayordomía* [776] of San Anselmo, patron saint of the group. There are also important ceremonial activities on the part of the *panaleros* in connection with the fiesta of Corpus Christi in June. The various ceremonies are described later.

Most gathering of wild honey takes place in the regions of old lava flows or *malpais*. The *malpaises* of Turicuaro and Tanaco are considered among the best today for honey gather-

[3] In La Cañada, wild gourds, *guajes* (arrumbas), are collected and sold in the Chilchota market. The leaf of a wild bay (?), *boya* (hóngakua), is used in washing clothes by La Cañada Tarascans, who claim the plant is eaten by the Sierra Tarascans. Soaproot, *amole*, is used in La Cañada for bathing.

[4] The orthography used for native words is that recommended by *Proyecto Tarasco* and the *Consejo de Lenguas Indígenas* (Swadesh, 1940). [104]

222 237 ing. The combs found here are round and hang from tree branches. They are found by observing the flight of bees; this requires good eyesight and is difficult on cloudy days. The clear weather of late spring and fall consequently is the time of greatest activity. From December until warm weather begins, the honey is sugared and cannot be extracted from the comb.

Several varieties of bees are sought. The combs found near Cherán are white and have little honey, most of the comb being occupied by brood. In the region near Tanaco the combs are red, small, and almost completely full of honey, with little brood. Other combs are described as being occupied by bees that are *muy bravo*. Only this type of bee requires the use of smoke to secure the honey. At times this bee attacks passers-by and follows until the victim covers himself with straw. Lemon [752] juice is used to alleviate the stings. In addition to these types, wild European bees are sometimes found in hollow trees.

Once a comb is located, the *panalero* usually climbs the tree and knocks the comb down. If [481] the tree is large, he cuts notches in the trunk with a small special-type ax, tying himself with [412] a riata or a length of rope while he chops. The rope is not tied, but passes around the tree trunk and the two ends are held in the hands. The *panalero* holds the rope tightly while he edges up the tree. Then, with a skillful motion, he throws the loop of rope higher up the tree trunk. Once the comb is reached, the *panalero* covers his face and hands with a blanket and taps the comb until the bees leave. The procedures are regarded as highly dangerous. *Panaleros* are always careful to take a good rest before climbing a tree. They are also particularly attentive to their saint, San Anselmo, who is believed to protect them. The danger of the occupation is increased by the fact that the *panalero* always works alone and in case of accident could expect no rescue.

Honeycombs are now said to be so scarce that it is hardly worth while hunting them. Nevertheless, one *panalero* mentioned securing 19 combs on one trip which he sold for 9 pesos. Sometimes the combs are sold as collected. At other times the honey is extracted by squeezing the comb in an *ayate* or carrying net. If very

1:Beals E-5 (1940-1941)1946 NU34 Tarasco NU34
Sierra Tarascans

clear honey is desired, it may be strained through silk. The native wild combs contain no wax. The larvae are sometimes eaten, either toasted in their cells or fried. The latter method of preparation involves picking the larvae out of the cells. Yet another method is to toast the larvae with onion, chile, and salt. The latter method is said to be especially tasty, but probably only *panaleros* ever use any of these methods very often.[5]

The larvae of another insect, the *traspanal* (*jicotera* in La Cañada), are also collected and eaten occasionally. This insect resembles the native bee but is a little larger and makes its nest in the ground to depths of 1 meter (3 ft.) or more. No other animal food is collected and the use of the eggs of wild birds was denied with every evidence of distaste.

USE OF MINERALS

Stone, volcanic cinders, and clay are the three mineral resources utilized in Cherán. Tuffs and lavas are employed for house building, foundations, and fences. The materials occur either in the town itself or in barrancas within a few hundred yards of the town. Volcanic cinders are also quarried out of the sides of barrancas, often within the town, and are employed to spread over slippery places on trails, streets, and yards. The supply of materials far exceeds demand, and the public domain affords all needed supplies.

Most of the rock used in Cherán comes from a quarry on the west face of the hill of Santa Karákua (also called Santiákujákua) within the village. Most of the rock is prised out of the upper face of the quarry in large pieces, which usually are broken up in the fall to the foot of the quarry. The broken rock is then placed in piles, which later comers will not molest. Smaller rocks and spalls are abundant and anyone may help himself to these. The rocks are usually packed by tying them on burros with ropes, while small pieces may be placed in nets or in pack boxes.

Clay is somewhat more scarce. It is used only for tilemaking and brickmaking, as no one in Cherán makes pottery. A sufficient supply of clay for all present needs is dug out

[5] At Sopoco in La Cañada, Rendón was told that the larvae are sometimes eaten raw.

1:Beals E-5 (1940-1941)1946 NU34 Tarasco NU34
[p.214a]
Sierra Tarascans
La Cañada

245 *Manila* varieties are grown extensively for
262 export. Scarcely a house lacks a sweet lemon tree. The fruit is sold in bulk to dealers before it is ripe. Bitter limes are sold the same way; the prices are less than for sweet limes, but people in Chilchota say they are more pleasant in flavor. Oranges are also grown extensively in orchards. Two varieties of guavas are utilized. The type known as *corriente* grows wild and is used only by poor people who cook the fruit in honey. The "fine" type is cultivated and sold. A few bananas are grown of the type known in Mexico City as *platano bolso* and in Uruapan as *corriente*. The local name is *Costarica*. A "fine" and an "ordinary" variety of peaches are grown; the entire crop is exported. Cherimoyas occur in most orchards, but not in such quantity as in the Tarascan towns of La Cañada. The product is all consumed locally. Some *zapote blanco* is cultivated in Chilchota; more is grown among the Tarascan towns. Cherries grow half-wild, being planted but not tended. The fruit is eaten raw or made into confections. A fruit known as juakinicuiles (in Mexico City, jinicuiles) is planted but not cultivated; it is much prized. Citron is grown in some orchards; all the product is sold. The tejocote is not used at all in Chilchota, and some people even were amazed at the idea it should be eaten.

Coffee is extensively cultivated, sharing with lemons the major place in the orchards. Almost all the coffee is sold in the bean in Zamora, and the coffee consumed locally is brought from Zamora.

244 Three varieties of squash are cultivated.
262 Calabaza Tarasca is grown in the fields and is all consumed in the town, either boiled or roasted in hot ashes. Calabaza de Castilla is grown in two varieties, one with hard shell and one with soft. Both are exported. A variety called sopoma grows in the fields and is all used in the town, either to make sweets or as greens for broth or stew.

222 The principal wild plant used for food in
262 Chilchota is a species of prickly pear (*tuna*), known as jococoxtle. It is used in certain of the beef stews or is ground with chile to make a sauce placed on the table.

253 Meat is mostly butchered on Saturday and
443 Sunday, and the main sales take place on
262

423 hectares in size,[46] and may be used indefinitely by the recipient, provided they are not left untilled for more than two successive years. They may [428] be inherited by sons, daughters, or in-laws, and may be divided among them. A family head may sell the use rights of his land to another member of the community, but not to outsiders. The official title to lands is held by the pueblo.

Another remnant of communal holdings, common in all parts of Tarasca, is found in the woodland, which is considered common land.[47]

[804] [Text continues top of P. 33b]

[46] In most parts of Tarasca land is measured in terms of the quantity of grain used in planting. Thus, in La Cañada a piece of maize land may vary from 1 to 8 liters of maize in size. Approximately 2 liters of maize is necessary to plant 1 hectare. (The term "hectare," however, is unknown to most Tarascans.) Five liters of maize equal 1 *medida;* 100 liters of maize are equivalent to 1 *fanega* (one hundredweight), or one *yunta*, meaning the amount of land in which a team (*yunta*) of oxen can plant one *fanega* of maize in one season. In terms of wheat, 44 liters equal 1 *carga*, or from 1 to 1½ *yuntas*. The above equivalents are those used in Chilchota and Carapan. Similar land measurements are employed in the Sierra.

[47] This aboriginal custom parallels the ancient Spanish practice of reserving woodland as communal property.

TARASCAN ECONOMY

241 Tarascan economy is today, and was in pre-Conquest times, as diversified as that of any large Indian group in North America. Agriculture has always been the preeminent occupation of most of the Tarascan population. Formerly, a 226 significant part of the people were fishers (or farmers and fishers), living around the shores of Lakes Pátzcuaro and Zirahuén and the numerous lakes and marshes of the northern plateau; the modern fishers are limited chiefly to the islands within Lake Pátzcuaro. Moreover, hunting and 224 gathering, although now of small importance, is 222 still practiced throughout the area. Apart from 463 the food quest, two other occupations have characterized Tarascan economy since prehistoric days: handicrafts and trade. Many of the Tarascan [438] villages specialize in particular home industries, for which they are famed over a large area. Again, in prehistoric and modern times the Tarascan has been one of the more notable Indian traders, serving as commercial middleman between the *tierra fría* and *tierra caliente* to the south and west.

AGRICULTURAL SYSTEMS AND ASSOCIATED CROP TYPES

241 Tarascan agriculture involves a mixture of New and Old World plants and cultivation practices. 177 The native trilogy—maize, beans, and squash—

[Text continues bottom P. 33b]

is eaten only on Sundays or on fiesta days by those who can afford it. On festive occasions, such as weddings, a whole mutton is stuffed with cleaned entrails and head and roasted in a large oven. (The roast is called *tatemado*, or uirikata.) On less prominent occasions pieces of mutton are often cooked with vegetables to make a kind of čuŕipu.

Pork is always eaten fresh; cured pork, such as ham, bacon, and sausage—all old Spanish meats—, has no place in modern Tarascan diet. Pieces of fresh pork are fried on the *comal*, or boiled with vegetables. A popular pork dish, especially in the Sierra, is *chicharrones* (cracklings), which consist of pieces of fresh pig skin well-cooked in a large copper caldron.[115] *Carnitas*, pieces of meat and fat, including spareribs, side meat, leg, etc., are also cooked in the caldron in many pueblos, and are commonly served in the markets of the large mestizo towns nearby.

FOOD-GATHERING ACTIVITIES

Tarascan women and children gather various wild herbs, fungi, and fruit to supplement agricultural products. Among these the most important are the annual greens, or šakuá,[116] collected during the rains from June through September. They are usually found in disturbed ground, e. g. within and on the edges of wheat or maize fields. The women in some Sierra pueblos recognize more than 15 varieties of šakuá that are habitually gathered.[117] These are boiled with chile and salt to make atápakua. Although eaten in all modern Tarascan villages, such greens are of greater importance in the Sierra, where the garden vegetables common in the Lake and La Cañada areas are infrequently cultivated.

Mushrooms (terékueča) are collected in all Tarascan towns, and, like the annual greens, appear only in the rainy season. They are found in the fields, in the forest growing under decaying logs,

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[115] In the spring of 1946 a *chicharrón* cooking was observed in Pamatácuaro. After killing a hog the local butchers or others set up a caldron in the plaza to cook the skin. By the time the cracklings were well done, a large group of villagers had gathered to buy them at a few centavos each. The lard so rendered was sold to one of the local stores. The cooking of *chicharrones* is also common in many mestizo towns in central and northern Mexico.

[116] Šakuá is the Tarascan equivalent of the Nahuatl "quelitl," which has been hispanicized to *quelite*, the general term now used in Mexico for any kind of wild annual used for greens.

[117] Unfortunately, the Sierra was visited during the dry season, and consequently specimens of šakuá plants could not be collected for botanical classification. Verdolaga (*Portulaca oleracea*) and tender amaranth sheets, however, are common šakuá varieties.

227 and even in sheltered spots in the village streets.
262 Again, collecting is done by women and children, though men may bring home a mess of mushrooms found while cutting wood. Eight to ten edible varieties are known in most towns. Children are trained early to recognize the poisonous kinds, called uaxíč-terékua (ghost mushroom). Terékueča are prepared by boiling and then frying
[252] in lard; they are also roasted with salt on the *comal* or over live coals; sometimes they are boiled and mixed with chile sauce. A *tamal* nákatamal-terékua) is often filled with boiled mushrooms. Aside from mushrooms, the fungus growth on maize ears is likewise called terékua (the *cuitlacoche* (*Ustilago maydis*) of the Aztecs), and is similarly prepared and eaten.

In the Sierra acid fruits, particularly berries, are other food items collected. The fruit of the native blackberry bush (*zarzamora*, ɬ'tún), which grows best in disturbed ground along hedgerows and on edges of fields, is gathered in May and June. The berries are eaten fresh with salt and are used to flavor atole (*atole de zarzamora*, ɬ'tún-kamáta). Other fruits commonly gathered include piníki, an orange-colored berry often carried to mestizo markets; *tejocote* and *capulín*, both gathered wild or semicultivated in hedgerows; wild grapes; the cherry tomato (šapíndikua), which grows along the edges of cultivated fields.

The buds (šamáš) of a wild *mezcal* type of agave is another food item commonly gathered in the Tarascan area and in most parts of Central Mexico. The buds and lower fleshy ends of the
262 leaves of the plant are roasted in a hole about 1
252 meter deep and 1 to 2 meters across, which is usually dug on the forested slopes where the wild agave is available. A fire is built in the hole, and after it has died down somewhat rocks are placed on top. When the stones become hot, the agave is placed in the hole and covered with maguey leaves and earth. After 3 days the cooked agave is taken out and carried to various markets where it is sliced and sold. Roasted agave is often termed *mezcal* (siuáta), but it must be distinguished from the distilled liquor (s'áku) of the same name. The former is rich in starch and is possibly one of the more ancient foods of Mexico.

Aside from food plants, the coarse roots of
222 zacatán grass (*Muhlenbergia macroura*) are collected by men throughout the Sierra. Called *raíz de paja* or *raíz de zacatón*, the dried roots are sold in

222 mestizo towns nearby for the manufacture of scrubbing brushes. This activity is not peculiar to Tarascans, for it is carried on by both mestizos and Indians in high altitudes of the Mesa Central where the grass grows in abundance.

263 Before the eruption of Parícutin in 1943, honey
222 gathering was an important collecting activity in the Sierra. The heavy fall of volcanic ash killed or drove away all wild bees in the area, terminating the ancient trade of the *panaleros*, or honey gatherers. Formerly there were 15 *panaleros* in Urapicho, and several in Cherán and Tanaco. In the spring of 1946 it was rumored in some pueblos farthest from the volcano that a few swarms of bees were returning. (See Beals, 1946, pp. 13–14, for a description of honey collecting in the Sierra.)

HUNTING ACTIVITIES

224 In pre-Conquest times hunting formed a significant part of the food quest among the Tarascans. Deer, rabbit, and grouse were hunted in the Sierra, while migratory waterfowl, chiefly ducks, were taken in the Lake area (Relación de Michoacán, p. 15). Today only duck hunting on Lake Pátzcuaro still has economic importance, and there it is limited chiefly to fishers—the islanders and some *rancheros* on the Tarío-k'eri Peninsula. Nine varieties of migratory ducks (principally of the genera *Nyroca*, *Mareca*, and *Nettion*) are recognized by the fishermen. Customarily bird hunting starts on the Día de los Muertos fiestas (October 31 and November 1), when as many as 100 ducks are killed by a single hunter, and continues until the departure of the flocks in late March. The p'atámu, or spear propelled with the
411 throwing stick (*ɬapáki*, or the Nahuatl *atlatl*), is still employed by many duck hunters. The spear, with a *carrizo* handle 3 m. long, carries 3 points, called the *fisga* (k'enčéta), each 7 cm. in length (fig. 5). Old flintlocks (*carabinas de chispas*) are also used by the Urandén islanders, but many modern hunters from Janitzio possess modern shotguns. Ducks are eaten in the Lake pueblos and many are sold in Pátzcuaro. Waterfowl are hunted by Tarascans likewise in the Zacapu Basin.

224 In the Sierra, hunting is looked upon as a
[517] pastime by most modern Indians. Men and boys often hunt deer, squirrels, and rabbits with flintlocks and some modern rifles. Game, however, is largely depleted in the Sierra. Beals

[TEXT continues bottom of P. 52b--Analysis]